CLAIMS

What is claimed is:

1. A method, comprising;

modulating a carrier signal in a first domain selected from the group consisting of phase, frequency, amplitude, polarization, and spread;

modulating the carrier signal in a second domain selected from the group consisting of phase, frequency, amplitude, polarization, and spread; and

modulating the carrier signal in a third domain selected from the group consisting of phase, frequency, amplitude, polarization, and spread.

2. The method of claim 1, wherein modulating the carrier signal in the first domain, modulating the carrier signal in the second domain and modulating the carrier signal in the third domain defines a three dimensional orthogonal symbol constellation selected from the group consisting of face-centered cubic spheres and hexagonal close-packed spheres, each sphere having 12 nearest neighbors.

3. The method of claim 1, wherein modulating the carrier signal in the first domain includes phase modulation, modulating the carrier signal in the second domain includes amplitude modulation and modulating the carrier signal in the third domain includes spread modulation.

4. The method of claim 1, further comprising modulating the carrier signal in a fourth domain selected from the group consisting of phase, frequency, amplitude, polarization, and spread.

5. The method of claim 4, wherein modulating the carrier signal in the first domain, modulating the carrier signal in the second domain, modulating the carrier signal in the third domain, and modulating the carrier signal in the fourth domain defines a four-dimensional

orthogonal symbol constellation of face-centered cubic hyperspheres, each hypersphere having 24 nearest neighbors.

6. The method of claim 4, further comprising modulating the carrier signal in a fifth domain selected from the group consisting of phase, frequency, amplitude, polarization and spread.

7. The method of claim 6, wherein modulating the carrier signal in the first domain, modulating the carrier signal in the second domain, modulating the carrier signal in the third domain, modulating the carrier signal in the fourth domain and modulating the carrier signal in the fifth domain defines a five-dimensional orthogonal symbol constellation of hyperspheres, each hypersphere having 48 nearest neighbors.

8. A computer program, comprising computer or machine readable program elements translatable for implementing the method of claim 1.

9. An electronic media, comprising a program for performing the method of claim 1.

10. The method of claim 1, wherein modulating the carrier signal in the third domain includes a constant envelope technique.

11. A method, comprising;

demodulating a signal in a first domain selected from the group consisting of phase, frequency, amplitude, polarization and spread;

demodulating the signal in a second domain selected from the group consisting of phase, frequency, amplitude, polarization and spread; and

demodulating the signal in a third domain selected from the group consisting of phase, frequency, amplitude, polarization and spread.

12. The method of claim 11, wherein demodulating the signal in the first domain, demodulating the signal in the second domain and demodulating the signal in the third domain decodes a three dimensional orthogonal symbol constellation selected from the group consisting of face-centered cubic spheres and hexagonal close-packed spheres, each sphere having 12 nearest neighbors.

12. The method of claim 11, wherein demodulating the signal in the first domain includes phase demodulation, demodulating the signal in the second domain includes amplitude demodulation and demodulating the signal in the third domain includes spread demodulation.

14. The method of claim 11, further comprising demodulating the signal in a fourth domain selected from the group consisting of phase, frequency, amplitude, polarization and spread.

15. The method of claim 14, wherein demodulating the signal in the first domain, demodulating the signal in the second domain, demodulating the signal in the third domain and demodulating the signal in the fourth domain decodes a four-dimensional orthogonal symbol constellation of face-centered cubic hyperspheres, each hypersphere having 24 nearest neighbors.

16. The method of claim 14, further comprising demodulating the signal in a fifth domain selected from the group consisting of phase, frequency, amplitude, polarization and spread.

17. The method of claim 16, wherein demodulating the signal in the first domain, demodulating the signal in the second domain, demodulating the signal in the third domain, demodulating the signal in the fourth domain and demodulating the signal in the fifth domain decodes a five-dimensional orthogonal symbol constellation of hyperspheres, each hypersphere having 48 nearest neighbors.

18. A computer program, comprising computer or machine readable program elements translatable for implementing the method of claim 11.

19. An electronic media, comprising a program for performing the method of claim 11.

20. The method of claim 11, wherein demodulating the signal in the third domain includes a constant envelope technique.